

## ABSTRACT OF THE DISCLOSURE

An iron core winding is such that a winding of a given polarity is coiled in series so that the beginning of each coiling and the ending of each coiling cross on a magnetic pole that is positioned in the direction of a circumference of the iron core. When the winding of the magnetic core with the given polarity is completed, the winding direction is reversed and the remainder of the winding, which has the opposite polarity, is coiled in series so that the beginning of each coiling and the ending of each coiling cross in the reversed direction. A variable reluctance angle detector uses the iron core winding. The number of windings of the output winding is the same for each pole, and an induced voltage output of a sine wave is obtained.